

General Landscape Character

## 4.1 Landscape Design

Landscaping should be integral to the overall design concept and should be carefully planned to serve more than one purpose. The landscape design should contribute to the overall appearance and function of the site as well as the streetscape.

### Goal of landscape design

The primary goals of landscape improvements on a new development project include:

- Help preserve and restore the scenic qualities of the natural landscape by retaining and/or re-vegetating areas with native plant species,
- Mitigate building and parking lot impacts,
- Add aesthetic charm, interest and character,
- Improve the functional aspects of a site,
- Reduce energy costs by providing shade in the summer of allowing heat/solar gain in the winter,
- Bring seasonal color, textural definition and visual softening as part of a comprehensive building project,
- Through the careful selection of plant varieties, minimize water consumption and waste.

### Benefits of landscaping

Landscaping is an integral element of comprehensive site development. It should complement the architecture of the building, and provide the following desirable benefits:

- Site beautification,
- Visual variety and interest,
- Shading,
- Visual screening,
- Definition of spaces and views,
- Highlighting of architectural features,
- Accentuation of major entrances,
- Regulation of pedestrian traffic,
- Enhancement of property values,
- Noise and dust abatement,
- Wind buffering,
- Groundwater recharge,
- Glare reduction,
- Wildlife habitat, where appropriate.

### Need for familiarity with Sedona and site conditions

It is critical for the designers of a new development in the City of Sedona to fully understand:

- The environmental conditions of the City. The specific site conditions; a pre-design site visit is essential.
- The environmental and maintenance requirements of the plant materials selected.
- The requirements of the City of Sedona Land Development Code, Landscaping (Section 910), as well as related codes and regulations.

A list of suggested plant species recommended for the Sedona area is attached in APPENDIX A.

Note - landscape designers should check the availability of plants from growers and nurseries before developing landscape plans, especially when native plant materials are proposed.

# 4.2 General Principles of Landscape Design

### Landscaping requirements

The provisions of the City of Sedona Land Development Code, Landscaping (Section 9103) relating to landscaping requirements outline minimum standards. The sometimes more restrictive recommendations presented in this manual reflect the community's desire for development sensitive to the special nature of Sedona.

### Landscape plan

Comprehensive landscape plans should be prepared and presented with all development proposals. The plans should show all existing trees and significant shrub clusters to remain, species and size of all new planting materials, transplanted trees and plants salvaged from the project site, and the location of a permanent low water-use irrigation system.

See Section 910, "City of Sedona Land Development Code", for details on submittal requirements for landscaping plans. These plans will be used to determine how the proposed development will impact the site, and proposed mitigation measures should be shown.

### 4.2.1 Preservation of Existing Vegetation and Topographic Features

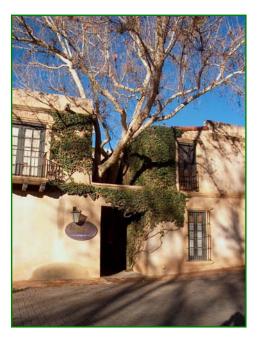
Existing vegetation can provide a sense of place, permanence and continuity to a new development.

### Preservation of existing vegetation and topographic features

Mature trees and shrub masses take years to establish, while removing them from a site and replacement or transplanting is a difficult and expensive process. Therefore, existing vegetation (as well as rock outcroppings, washes, and other natural features) should be recognized early in the design development process and utilized as a valuable determinant in site design and layout.

See also Section 2.4.5, "Relationship to Topography and Vegetation".

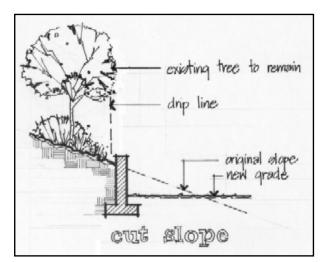


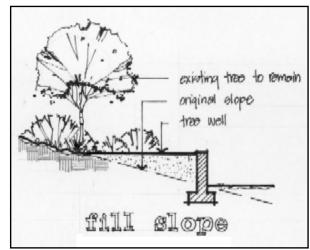


### Tree protection

When developing a site, every effort should be made to protect existing tree stock over 4" in diameter at 3-4 feet from ground level. Uncontrolled removal of trees and natural vegetation may speed up the erosion and storm water runoff process. Trees to be saved, as well as significant shrub masses, should be noted on site plans and appropriate methods should be outlined to protect them from damage during construction with fencing or onsite barricades.

To save existing trees, grading must not intrude inside the drip line of the tree canopy. In minor cut or fill areas, tree wells can be used to protect existing trees.





### 4.2.2 Natural Landscaping

Natural landscaping is the design, construction and maintenance of landscapes that provide the beneficial natural functions that can be lost through the introduction of non-native plants that are not suitable or adaptive to the Sedona area, and particularly, cultivation of large areas of lawn or turf.

### Natural landscaping

Natural landscaping stresses the preservation and reintroduction of plants native to the Sedona area. Fortunately, many native plants are now available through nurseries. In addition, many substitute adaptive plants are suitable in the Sedona area, and these can have the same beneficial effects as many true native plant species.

The benefits of natural landscaping include the following:

- Native plants are hardy and require less maintenance,
- Water conservation natural landscapes require a minimum of irrigation, and once they are mature, may even be self-sufficient without the need for supplementary irrigation,
- Reduced costs of storm water management as natural landscaping reduces the amount of storm water runoff.
- The visual interest and diversity of native plant materials in Sedona creates visual interest and diversity of natural landscapes,
- Native plants can effectively stabilize the soil and reduce erosion,
- Large areas of natural landscaping can provide shade and windbreaks to reduce the costs of air conditioning and heating.

- Natural landscaping protects and restores habitats for wildlife,
- Natural landscaping puts people in touch with the native flora and fauna of the Sedona area.

As a general principle and guideline, native plants should comprise a minimum of 50% of the supplemental landscaping proposed in a project site.





### 4.2.3 Boundaries and Transitions

Landscaping should be used to create boundaries and areas of transition between buildings and differing development intensities, as well as separating a new development from incompatible land uses.

### **Boundaries**

In multifamily residential developments, fences, shrubs and small trees softened by adjacent plantings should be used to create boundaries as buffer separations to define outdoor living spaces and maximize privacy for each living unit.

### Landscape buffers

Landscape buffers between dissimilar or conflicting land uses are encouraged.

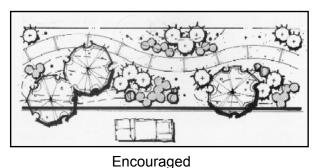
Well-designed landscape treatments can:

- Lessen adverse visual impacts between differing land uses,
- Reduce noise levels.
- Mitigate effects from dust and automobile fumes,
- Increase privacy levels.

Parking lots adjacent to highways or commercial sites should be separated by a buffer edge as a screen, which provides a pleasant visual experience from the public right of way.



Buffer and highway plantings should include a variety of species with low maintenance requirements. Appearance should be informal, with clustering preferred over rigid row plantings.

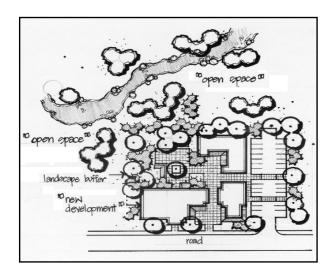


Discouraged

See also Section 2.6, "Parking", and the relevant requirements of Section 912, "Parking Requirements and Standards" of the City of Sedona Land Development Code".

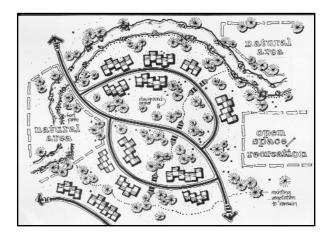
### Soften transitional edges

Where new development adjoins areas of open space, a soft transitional edge is recommended to create a gradual transition between the open space and the new development.



### **Blend landscape treatments**

The landscape design of a new project should blend with the dominant existing or planned streetscape and character of the area. Added new plant materials should merge into a pattern compatible with existing native vegetation, thus avoiding sharp and obvious transitions. In some cases a more definitive border may be desired: for example, to define the edges along driveways or walkways.



### Identifiable spaces

When new, large-scale multifamily residential developments are proposed, open space breaks and existing natural vegetation should be used to create identifiable spaces for adult relaxation and children's play activity within the development.

### 4.2.4 Landscape Continuity

All new development proposals should consider the existing landscaping within the Context Area of the project, so that landscape continuity can be achieved and maintained within the community.

### **Context Area**

To ensure overall compatibility within the urban landscape, the proposed plant and site materials should be consistent with, (yet not necessarily uniform), and of a similar scale and maturity to vegetation existing within the Context Area, (i.e. an area within approximately 500 feet of the project site), where appropriate.

The following general vegetation types as shown below represent the native vegetation of the Sedona area:

- Riparian zone Arizona Sycamore, Fremont Cottonwood, etc.,
- Pinion/Juniper Woodland,
- Mesquite Grassland.

### **Special Development Areas**

The landscaping principles and standards suggested in this section of the Manual may be modified as appropriate once the special Development Areas referred to in Section 5.0 are defined and character guidelines are established.

### Integrate with the natural environment

Where significant native vegetation cannot be preserved in conspicuous places, developments in those areas are encouraged to utilize vegetation from the following list as well as from a more comprehensive list provided in Appendix A:

- Pinion pine,
- Native Utah juniper or ketleri juniper,
- Arizona cypress (where in context),
- Sycamore (where in context),
- Cottonwood (where in context),
- Water Birch (where in context),
- Mesquite,
- Yucca, agave and/or bear grass,
- Manzanita and other native shrubs such as Desert Ceanothus or Mountain Mahogany,
- Live oak,
- Some cactus varieties,
- Wildflowers.

Some other native varieties may be appropriate if found within the Context Area of the subject site. These plantings should be used in conspicuous areas to create the feeling of the development integrating with the natural environment. This will help to create a subtle unifying character in the City.

### Four season character

All new developments should use, in conspicuous places, some of the following or similar plant materials:

- Desert Willow,
- Arizona Ash or Raywood Ash,
- Pear (ornamental, Non-fruiting),
- Flowering Crab Apple,
- Three Leaf Sumac,
- Photinia tree.

This will help to establish a subtle unifying character and enhance the seasonal changes.

### Size, spacing and scale

Size and spacing of landscape elements should be consistent with the size of the development, relate to any identifiable streetscape, and be appropriate to the scale and character of the proposed new structures. Refer also to Section 910 LANDSCAPING of the City of Sedona Land Development Code. The final mature sizes for plants should be considered when they are selected and placed so that a more natural look can be achieved without the need for periodic pruning and trimming.

See also Section 4.3, "Plant Selection".

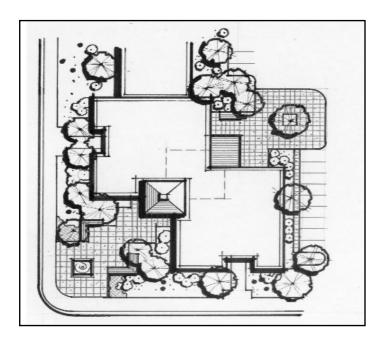
### 4.2.5 Other Landscape Design Principles

### Anchor to site

Proposed landscaping should be provided against all buildings to anchor them to the site and surrounding environment and to soften the structure. In-the-ground landscaping should comprise the majority of the provided landscaping. However, raised planters are acceptable when designed to accentuate the architecture and/or enhance pedestrian areas.

### **Corner sites**

The landscape and site design for projects located at the corners of street intersections should provide special landscape treatment to anchor the corner.



### View protection

New landscaping should be designed with consideration for adjacent properties so that views are framed and enhanced rather than interfered with or blocked. Where appropriate, trees can be pruned to create windows within the lower branches to allow views towards distant features.

### Hardscape

Large areas of unshaded pavement, such as parking areas, should be minimized by appropriate design and landscaping. Trees should be used throughout paved areas and along pedestrian pathways to provide shade and to reduce heat build-up and glare. Pavement materials should be chosen for minimal reflected light and glare. The use of pervious materials is encouraged to reduce surface water flows. Selected plant materials should be resilient to the difficult growing conditions inherent to the nature of parking areas.

### Water conservation

Because of Sedona's high desert natural environment, the increasing demand for water in the Sedona area and the Verde Valley as a result of on-going growth and development, unpredictable weather patterns, the need for water conservation has become more important. The implementation of xeriscape landscape designs, which feature drought tolerant native and adaptive species and require little irrigation, care or maintenance is therefore preferred. The use of drip irrigation systems rather than flood irrigation methods is preferred to reduce water loss through evaporation.

See also Section 4.3, "Plant Selection".

### Signage

Signage locations should be coordinated with the placement of plant materials.

### Landscaping as a buffer

A landscape buffer should be provided to screen commercial uses and parking areas from adjoining residential areas. Dense landscaping can be used to screen unattractive views and features such as storage areas, trash enclosures, utility cabinets and other similar elements, especially when used together with architectural features such as walls or other screening devices. When landscape materials are utilized in screening or buffering applications, then they should be pruned to be no less than 3-4 feet in height.

### Safety

Along streets and highways, plant materials must be selected and placed to avoid blocking sight lines at intersections and curb cuts. Along utility rights-of-way, planting should not disrupt service or access to overhead or underground equipment and lines.

### Maintenance

New development projects should demonstrate that maintenance factors have been considered in the landscape design. For example, irrigation systems should be designed for low maintenance and efficient water distribution and consumption. Proper maintenance and timely replacement of plant material is expected and is required (refer to Section 910.12 of the Land Development Code).

### Irrigation

The use of permanent drip irrigation systems is required for all new landscaped areas (Refer to Section 910 of the Land Development Code). The design of irrigation systems should take into consideration the water needs of the trees and plants within the landscape area, and separate zones should be established for trees and plants within similar watering needs. This is especially important where native and adaptive species are planted close together because typically a native high desert species requires less water than many introduced species. For example, pinion pine trees require very little water and they should be on a program that provides them with water every 10-15 days at the most.

### 4.3 Plant Selection

The selection and layout of plant materials should optimize the growth potential of each species, recognizing its special environmental and maintenance requirements.

### 4.3.1 Planting Design

Good planting design should create an attractive composition of colors, textures, and forms. It should also complement the function and growing conditions of the site. Plants should be selected to serve particular functions.

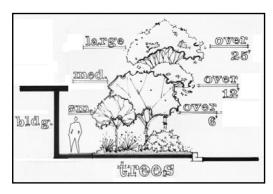
These principles apply:

### A. LARGE TREES

- Scale down large buildings,
- Provide vertical structure for large plazas and wide streets (on Highway 89A in West Sedona, for example),
- Provide shade and canopies for large plazas and parking lots,
- Provide silhouette against the skyline.

### **B. MEDIUM TREES**

- Provide silhouette against large wall surfaces,
- Add vertical structure for pedestrian spaces and walkways,
- Make canopies for pedestrian ways, plazas, and courtyards,
- Establish large areas of color above eye level.









### C. SMALL TREES

- Provide accent color and texture,
- Delineate pedestrian linkages and spaces,
- Provide silhouette against lower level walls.

### D. SHRUBS

- Delineate pedestrian linkages and spaces,
- Provide color at and below eye level,
- Screen unsightly views and building services or equipment.



### E. GROUNDCOVER AND VINES

- Provide a variety of color and texture,
- Break up flat surfaces and walls,
- Control erosion,
- Reduce glare or heat buildup.





# F. SUCCULENTS AND OTHER SIMILAR MATERIALS

 Provide special effects of character, theme, or accent.

# G. NATIVE GRASSES AND WILD FLOWERS

 Best used in large open areas to prevent erosion and add color.

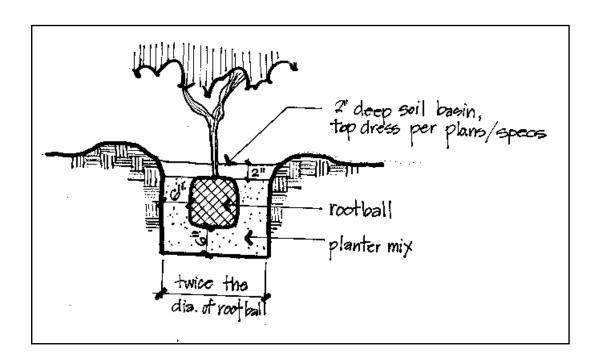


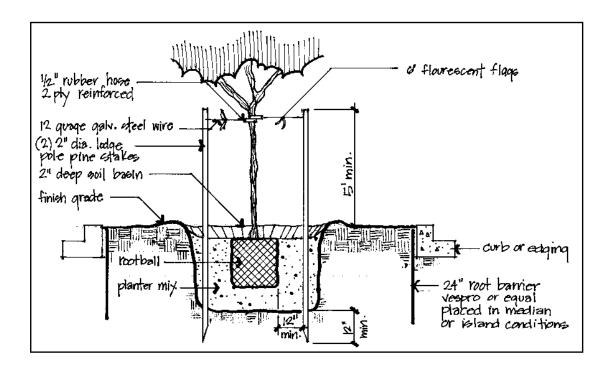
### Plant materials

At installation, the proposed landscape design should provide for a mix of plants of differing maturity throughout the site. Variety of plant materials creates a more mature looking landscape at installation, and promotes greater plant survival.

### Planting guidelines

Trees and shrubs should be planted with care to ensure their survival, and with consideration for Sedona's sometimes-harsh environmental and weather conditions. It is strongly recommended that the services of a professional landscape contractor be employed to ensure that the often-considerable investment in landscape design and materials is implemented following the vision of the original landscape plan. Suggested guidelines for tree and shrub planting are provided in the details below.





### Mature or specimen trees

The planting of mature or specimen trees that are anywhere from 8 – 15 feet in height is strongly encouraged as it gives a sense of permanence to a project and provides an immediate impact. Mature trees are especially important in landscape areas that buffer adjacent uses and to screen parking areas.

### Native plants

Emphasis should be placed on using native plants. In addition, drought resistant varieties that are adaptable to the area soils and climate and blend in well with native varieties may be used as a supplement. When used prudently, non-native plant species can be used in courtyards or confined areas.

A list of native and adaptive plants is attached as Appendix A.

### Native grasses and wild flowers

The use of native grasses and wild flowers, even though they may need periodic replenishment, is strongly encouraged.

### Water conservation

Landscaping designs and layouts should respect the need for water conservation. Accordingly, low water use plants should be emphasized in proposed landscape layouts. The use of organic mulch materials around the base of plants is recommended to reduce water loss.

### Discouraged plants

Pedestrian safety and comfort should be considered when selecting trees and plant material. Accordingly, plants that produce excessive thorns, pollen, fruit, pods, nuts, shedding bark or drooping branches should be avoided in pedestrian traffic areas.

A list of discouraged trees and plants that are not appropriate for planting in the Sedona area is provided in Appendix A.

### Ornamental plantings

Ornamental plantings generally should be limited to foundation plantings, entryways, and planter beds, boxes, or pots.





### Grass lawns

Grass lawns should be used sparingly, because they typically require inordinate amounts of water. When sited appropriately, lawns can cool the ambient temperature by as much as 10°F, and they provide relief from large paved areas. As a general rule of thumb, any lawn or turf area should not exceed 10% of the overall landscape area of a project site, except with the riparian areas associated with Oak Creek where larger amounts of lawn or turf may be appropriate. However, new grass species have been developed (including for example, varieties of Buffalo grass, fescue grass, etc.) and sprinkler head design has greatly improved, such that water use is significantly reduced. Thus, greater areas of lawn or turf may be appropriate if it can be demonstrated that they will not demand high water usage.

#### Ground cover

As an appropriate replacement for lawns and to revegetate rocky areas, the use of living ground covers, native grasses and wild flowers is encouraged.

## 4.4 Landscape Maintenance and Pruning

In order to ensure that landscape materials continue to serve their function and purpose (such as for screening, shade, etc.), regular maintenance and pruning is necessary. This will also promote optimum health and minimize deterioration through disease, insect infestation, overgrowth, etc.

### 4.4.1 Techniques for Successful Tree Pruning

At some point, existing native or introduced planted trees may need to be pruned, because of for example, the need to control a tree's size and growth to prevent interference with overhead utility lines or view corridors. Many times unprofessional tree maintenance crews are employed and trees are topped in an unsightly and unhealthy manner. The purpose of this section is to identify why tree topping is wrong and to provide some guidelines on proper tree pruning techniques.

### What is topping?

Topping is the drastic removal or cutting back of large branches in mature trees. Typically the tree is pruned as a hedge is sheared, and the main branches are cut to stubs. Topping is sometimes also referred to as heading, stubbing or dehorning.

### Why are trees topped?

Some reasons why trees are topped are provided below:

- Many property owners have their trees topped when they feel their trees have grown to an unsafe height, and they fear it being blown over in high winds. This fear is unjustified as the extensive root system of a large healthy tree provides adequate support. An old healthy tree is often less likely to be blown over than a smaller tree with a less developed root system.
- Topping stimulates new growth in the tree that is beneficial. This is untrue. Although the tree appears rejuvenated with new branches and foliage, they only mask the real injury topping does to the tree (see below).
- Topping to remove potentially hazardous dead and diseased branches often leads to the removal of healthy tree limbs as well. The hazardous branches are best removed by selective pruning instead of topping.

 Topping is often performed to prevent interference with overhead utility lines, to open up view corridors, to prevent interference with buildings or other trees or to allow sun into areas such as gardens and lawns.

### Why is topping injurious to trees and wrong?

Topping can injure a tree in the following ways:

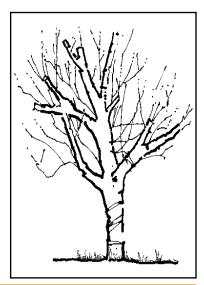
- Removing much or the entire tree canopy upsets the crown-to-root ratio and seriously affects the tree's food supply. Topping cuts off a major portion of a tree's food making potential and severely depletes its stored food reserves. This leads to the tree's slow starvation.
- In an effort to regain its food making potential, a topped tree rapidly produces dense upright branches just below the pruning cut. These new shoots or "suckers" are weak and prone to disease.
- Topping removes all the existing buds that would ordinarily produce normal sturdy branches.
- Large branch stubs left from topping seldom close or callus, and they are unable to seal
  of the injury caused by the cut. This makes them vulnerable to insect invasion and
  fungal decay, which could eventually spread into the main trunk of the tree and kill it.
- Since water sprout growth is generally rapid, a topped tree will generally grow back to its original height faster and denser than a tree that has been properly pruned or thinned. Thus topping, at best, is only a temporary solution to oversized trees.
- Deteriorating branch stubs, along with weak sprout growth make topped trees highly vulnerable to wind and snow damage.
- Aesthetically, topping disfigures a tree as the unsightly branch stubs, conspicuous pruning cuts and a broom-like branch growth replace its natural beauty and form.

### Alternatives to topping

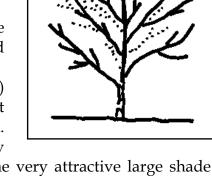
There are situations where reducing the tree crown is desirable and necessary.

This can be accomplished in any of the following ways:

- Thinning-out This involves removing selected branches by pruning them back to the lower level lateral branches. This reduces the tree's height and spread while retaining its natural shape.
- Side pruning This is the removal of a large tree's side branches when they interfere with overhead utility lines. Usually the opposite side of a tree is also pruned to preserve its symmetrical shape.
- Directional pruning This involves the opening of paths for overhead utility lines through the tree crown.
- Careful and judicious pruning while the tree is young can eliminate the need for major pruning later on. This can



- control tree growth and preserve the natural form of the tree without causing damage to its health.
- Sometimes it may be better to remove a tree considered to be too large and replace it with a smaller one.
- Consider the potential height and spread of the tree at full maturity. Avoid planting where the tree may eventually interfere with overhead utility lines or other obstacles.
- Utilize the services of a professional tree maintenance service that understands proper pruning practices and that topping is not appropriate.
- Evergreen trees such as the Photinia tree (Photinia fraseri) should not be pruned into symmetrical ball shapes that detract from their natural free form growth pattern.
   When allowed to grow naturally and if necessary lightly



pruned to enhance their shape, these trees can become very attractive large shade producing evergreen trees.

### 4.4.2 Pesticide, Herbicide and Fertilizer Use

Pesticides, herbicides and fertilizers when applied correctly and according to the manufacturer's instructions are valuable in the eradication of pests and disease and for promoting the growth and health of supplementary landscape materials. However, as most pesticides and herbicides may be toxic to wildlife, they should be used cautiously and in as limited a manner as possible to minimize health risks to wildlife and to prevent contamination of surface water channels and waterways, especially drainages that lead directly into Oak Creek.

# 4.5 Other Landscape Elements and Features

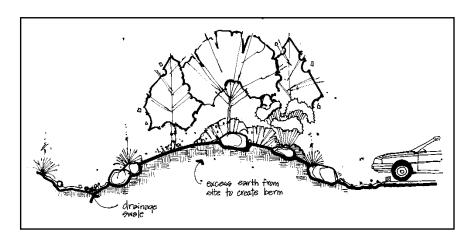
Proper selection of these elements is important to restore the scenic and environmental qualities of the natural landscape, add to Sedona's sense of place, aesthetic value, interest and character, and improve the functional use of a site.

### Mounding and berms

Carefully designed and strategically placed earth mounds and berms can serve the following purposes:

- Add relief to flat ground.
- Provide visual screening of for example parking areas, mechanical equipment, garbage

- collection and service areas, etc.
- Can be integrated with drainage swales to divert and channel water in an aesthetic and attractive manner.
- Can be an appropriate way of disposing of excess earth on a site.



See also to Section 2.6.1, "Parking Area Design and Landscaping" and Section 2.10, "Fences and Walls".

### **Drainageways**

The use of aesthetically pleasing and site sensitive designs and treatments that fit in with the overall design of a project is encouraged. Drainage ways should be designed to control erosion, maintain existing native plants on the site and add aesthetic value to the site.

See also Section 2.3, "Drainageway Design".

### Water retention basins

Where required, water retention basins should be landscaped with appropriate materials and integrated into the overall design and layout of the development.

See also Section 2.3.2, Stormwater Retention Basins".

### Swales/drainage channels

Where the use of swales to carry off surface water is required, they should be treated as a landscape element and integrated into the overall design of the development. The following general design guidelines should be incorporated:

The swale or drainage channel should be made to look as natural as possible. The use of concrete or the overly uniform placement of rocks to stabilize channels is strongly discouraged.

Use natural rock or indigenous river rock/boulders to line the swales in an irregular pattern by using rocks and boulders of different sizes, and incorporate ground covers and other appropriate vegetation.

AVOID straight lines. Varying widths, curvilinear layouts, and undulating designs that are functional as well as aesthetic are encouraged.

See also Section 2.3.1, "Drainageways".

#### Water features

Manmade water features such as fountains and ponds that incorporate the use of natural rock are encouraged, and should be designed as an integral part of the overall landscape design concept. These features are especially desirable in courtyards and patio areas, as well as in association with building entrances.

See also Section 2.5.2, "Courtyards and Passages".





### Walls and terraces

The following general principles for the design and construction of walls and terraces are encouraged:

Construction activities on a site generate rocks and boulders. These can be used in the construction of walls and terraces (dry stacked or mortared), or for riprap for ground surface treatments.

The use of native stone or other natural materials can be integrated with appropriately colored and textured stucco, wood siding and other building materials.

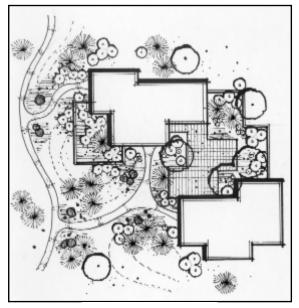
See also Section 3.4, "Building Materials and Textures", Section 3.5, "Color", and Section 2.10, "Fences and Walls".

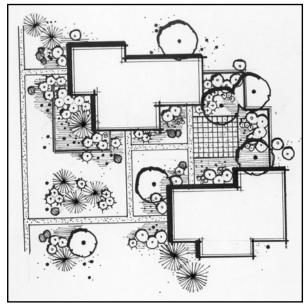
### Walkways and patios

Walkways and patios should be included early in the design of an overall comprehensive landscape plan. The use of a variety of paving materials within the overall project design is encouraged. Where underground utilities need to be accessed under walkways or patio areas, then modular units that are easily removable and replaced should be used to reduce waste.

Free form, meandering sidewalks and pathways are preferred, rather than rigid, straight-line alignments.

Discouraged materials include brushed gray concrete and black asphalt.





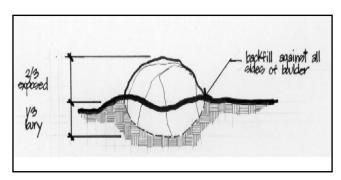
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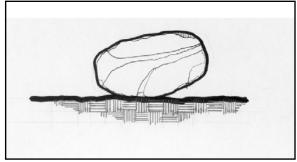
### **Boulders**

The use of native local rocks and boulders grouped and placed in a natural and realistic manner to add interest and variety to landscaped areas is encouraged. Boulders should be placed in groups to emulate natural rock outcroppings, rather than as single elements surrounded by crushed rock and plant materials. Boulders should be integrated into the design of patios, swales, drainage ways, earthberms and mounds. All boulders and large rocks should be buried at least one-third of their height and earth back filled up against the boulder for a more natural appearance.

See also Section 910, "Landscaping" of the City of Sedona Land Development Code.



Encouraged



Discouraged

### Non-vegetative groundcovers

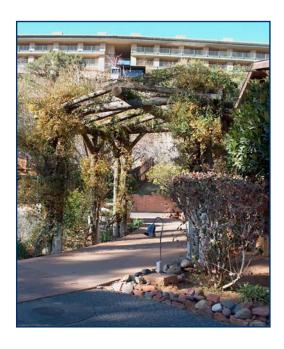
The use of non-vegetative groundcovers on no more than 50% of the landscaped ground surface is encouraged to reduce heat buildup and the demand for water consumption. Non-vegetative groundcovers include rocks and small stones, crushed red sandstone, cinders, granite, bark and natural red earth, and do not include the use of pavement or concrete. Areas that are covered by non-vegetative groundcovers should be broken up as much as possible by living plant materials.

The use of the following non-vegetative groundcover applications is discouraged:

- Bark in large open areas. Bark, as a groundcover is more appropriate in small areas where it can be more easily maintained.
- Red/black cinder in large areas to avoid heat buildup. Cinders are appropriate only in small areas to add accents to landscape designs.
- Painted rocks or rocks held together with epoxy or similar resins.
- Light pink decomposed granite.

### Arbors and trellises

The use of arbors and trellises compatible with the overall design and character of a development is encouraged to add shade and interest in landscape designs.



### **Special features**

Special features, artifacts and unusual items, if used in landscapes, must be considered very carefully in a landscape plan to assure that they achieve the objectives of this section, namely to preserve and restore the scenic qualities of the natural landscape.

### 4.6 Outdoor Spaces

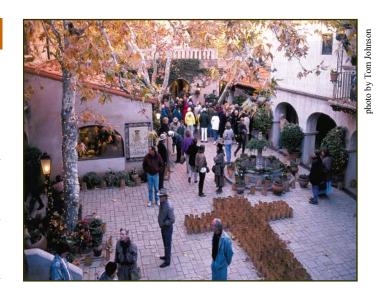
Landscaping design for individual outdoor site spaces should provide shade, opportunity to rest, adequate lighting, and relief from traffic noise.

### 4.6.1 Plazas and courtyards

### Design principles

The following planting design principles apply:

- Create shade for pedestrian comfort. Trees with canopied branches are important.
- Provide visual variety with colorful flowers and foliage textures.
- Plaza and courtyard plantings can be more lush and colorful than the surrounding environment.



 Include seating opportunities (benches, raised planters, low walls) and special features such as fountains and public art.

### 4.6.2 Streets and Parking Lots

### Design principles

The following planting design principles apply:

- New plantings of trees and shrubs should be grouped into informal clusters rather than in a rigid alignment or rows.
- Canopy trees to create shade over paved surfaces should be provided wherever possible.
- Coarsely textured groundcovers can be used to add visual interest and minimize soil erosion.
- Plant materials should be resistant to difficult growing conditions, such as snow and ice, reflected sun and summer heat, and pedestrian and vehicular traffic.

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